

news letter

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No. 3

GENERAL ADMINISTRATION

Dr. Henry G. Knight left on a trip of inspection on September 9. He plans to visit the Southern Regional Research Laboratory at New Orleans, La.; the U.S. Fruit and Vegetable Products Laboratory at Weslaco, Tex.; Fruit and Vegetable Chemistry Laboratory, Los Angeles, Calif.; the Pharmacological Investigations being conducted at San Francisco, Calif.; the Frozen Pack Laboratory, Seattle, Wash.; and the U.S. Fruit and Vegetable Byproducts Laboratory at Pullman, Wash. He will also stop at Detroit, Mich. and Toledo, Ohio. He expects to return to Washington on October 4.

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Mr. S. H. McCrory left Washington, D.C. September 2 to attend the All-Industry Seminar at Chicago, September 4-11, inclusive. He then visited the corn production investigations and grain storage investigations at Ames, Iowa.; rural electrification work at Lincoln, Nebr.; sugar-beet studies at Fort Collins, Colo. He saw W. M. Hurst at Corvallis, Oreg. and inspected the fiber flax studies there.

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Henry A. Donovan, Assistant to the Chief, visited the Western field stations of the Bureau during the latter part of August for the purpose of conferring with the officials of the several stations regarding administrative and business matters. His itinerary included the field laboratories and stations at Pullman and Seattle, Wash., San Francisco, Berkeley, and Los Angeles, Calif.; Ames, Iowa and Toledo, Ohio. Mr. Donovan returned to Washington, Thursday, September 5.

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Miss Agnes M. Eggers who has for several years been assistant to the head of the Central Files Section of the Bureau in Washington, was transferred on September 1 to the Eastern Regional Research Laboratory at Wyndmoor, Pa., where she will be in charge of the Mail, File and Service Section of that laboratory.

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: Those interested in obtaining suggestions on post entry :
: educational courses should confer with C.F. Speh, Chief of the :
: Naval Stores Research Division, Bureau of Agricultural Chemistry :
: and Engineering, 2121 South Building. A booklet describing edu- :
: cational courses for study and research in Government service for :
: 1940-41 by the Department of Agriculture Graduate School may be :
: obtained from the Office of the Graduate School, Room 1031, :
: South Building. :
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Dr. David J. Price, while in the neighborhood of the Eastern Regional Research Laboratory at Wyndmoor, Pa., on September 4 called at the laboratory for conferences with staff members concerning equipment matters.

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Among callers at the Division were George J. Richardson, Secretary-Treasurer of the International Association of Fire Fighters, John J. O'Doherty of Lorraine, Ohio, and several officials of the Fire Fighters' Association from Atlanta, Ga. Byron J. Culp, Assistant Safety Engineer of the Bureau, showed the visitors around the Bureau and acquainted them with the safety and fire prevention methods which have been installed in the Bureau Laboratories.

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R. L. Hanson spent Friday, September 13, at the Eastern Regional Research Laboratory, where he had a number of conferences with the director and members of the staff relating to equipment.

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Mr. Culp spent three days at Wyndmoor, Pa., making a safety and fire prevention inspection of the Eastern Regional Laboratory. In his report Mr. Culp made a number of valuable recommendations.

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REGIONAL RESEARCH LABORATORIES

A series of conferences of division chiefs, commencing Sept. 30 and ending Nov. 2, will bring to Washington representatives from all the laboratories covering the various phases of research that will be undertaken with a view to coordinating the work of the laboratories with that being done elsewhere in the Bureau. Following the conference period the Directors will meet at Washington, probably from October 28 to November 9.

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The Eastern Laboratory staff moved from their temporary quarters into the new building at Wyndmoor, Pa., on Aug. 21, and actual experimental work is now getting under way. The Western and Northern laboratory buildings will be ready for occupancy very soon, tests on construction being scheduled to be made this month.

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Dr. E. G. Beinhart, of the Eastern Laboratory, attended a meeting of the Tobacco Research Committee held at Blacksburg, Va., August 7-9.

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Doctors G. E. Hilbert, Richard Wiebe, John C. Cowan, Chas. L. Mehltretter, and Roy L. Whistler attended the fall meeting of the American Chemical Society at Detroit, Sept. 9-13. Dr. Wiebe read a paper "The Binary System Carbon Dioxide-Water," in the symposium on Reactive and Equilibria in Chemical Systems Under High Pressures. Dr. Hilbert also participated in the starch conferences at Dearborn, Mich. on Sept. 7 and 8, sponsored by the Corn Industrial Research Foundation.

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Recent additions to the staff at Peoria: Julian W. Nash, Asst. Chemical Engineer, Agricultural Residues Division; Dr. T. R. Naffziger, Assoc. Chemical Engineer, Engineering and Development Division; Dr. L. J. Wickerham, Asst. Bacteriologist, Fermentation Division; Dr. Majel M. MacMasters, Assoc. Chemist, Starch and Dextrose Division; Robert A. Knox, Sr. Clerk; Mrs. Maxine Moutone, Asst. Clerk-Stenographer; Miss Anna C. Hicks, Jr. Clerk-Typist; Miss Virginia Mae Thomas, Jr. Clerk-Stenographer; Maurice A. Agre, Jr. Clerk-

Stenographer; and Leo C. Dillon, Assistant Messenger. Mr. Nash was formerly with the E.I. du Pont de Nemours at Charleston, W. Va., Dr. Naffziger was in the Chemical Engineering Research Division of the Bureau. Dr. Wickerham was in the Department of Bacteriology, University of Illinois. Dr. MacMasters was in the Department of Home Economics, University of Illinois.

Dr. Wm. J. Sparks, of the Northern Laboratory, resigned his position as Chief of the Oil and Protein Division, to accept a position with the Standard Oil Development Company.

H. E. Roethe of the Northern Laboratory attended the annual convention of the National Hay Association in Indianapolis, Ind., Aug. 26-27, and presented a paper entitled, "Northern Regional Laboratory for Research on Utilization of Farm Products."

Dr. J. J. Willaman, Chief of the Biochemical Division of the Eastern Laboratory, gave an address entitled, "What Else Can we Do with Vegetables," before a meeting of the Vegetable Growers' Association of America held at Philadelphia August 26. Dr. H.H. Mottern also attended.

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ENZYME RESEARCH LABORATORY

Dr. Arnold Kent Balls spent several days at Detroit the early part of September attending a conference on starch chemistry. The conference was organized by Norman Kennedy of the Corn Industries Research Foundation, and the discussions were led and directed by Dr. C. S. Hudson of the U.S. Public Health Service. Many phases of starch chemistry and technology were touched on.

Messrs. E. F. Jansen, I. W. Tucker and J. R. Hoffman visited the Rockefeller Institute at New York City late in August, in connection with the construction of the new analytical and quantitative type of ultracentrifuge being constructed in the Enzyme Research Laboratory. At the Institute they inspected the construction and operation of such a centrifuge in use there and conferred with officials regarding the type of work being done with ultracentrifugation.

Dr. M. B. Matlack visited the University of Virginia at Charlottesville recently where he was shown through their various laboratories, and conferred with Prof. Beams on his work and its relation to ours.

Among the visitors to the Enzyme Research Laboratory in the past few days were Dr. L. V. Burton, Editor of Food Industries, and Charles S. Ash of the California Packing Corporation.

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AGRICULTURAL BY-PRODUCTS LABORATORY, AMES, IOWA

Henry A. Donovan, Assistant to the Chief, spent September 3 at the Laboratory conferring with Dr. S. I. Aronovsky regarding business matters.

Other visitors at the laboratory included the following: R. B. Gray, Chief of the Farm Mechanical Equipment Research Division, Washington, D.C. and C. K. Shedd of the Corn Products Machinery Section, Ames, Iowa; Professor G. W. Kuhlman and Messrs J. Bursick, and W. Grieveler of the Oregon State College, Corvallis; Oregon; Harry Miller, Research Chemical Engineer of the Doane Agricultural Service, of St. Louis, Missouri, who conferred with members of the staff as to the possibility of making pulp from castor bean stalks; J. E. Baker, General Superintendent of the Mathieson Alkali Works, Niagara Falls, New York, who inquired regarding conductometric analysis, pulp bleaching, etc.; Dr. P. A. Wells, Director of the Eastern Regional Research Laboratory; W. B. Van Arsdell, Chief of the Engineering and Development Division, Western Regional Research Laboratory; Messrs Francis Mar, S. C. Chang, Shan Ming Chen, Yien Si Tsiang and Hong Yu Chen of the Division of Agronomy and Plant Pathology, University of Minnesota, and Mrs. Paul Kurtzweil of the Southern Regional Research Laboratory.

Dr. J. D. Reid and E. C. Dryden were ordered to military duty from August 25 to September 7. Dr. Reid was ordered to Ft. Crook, Nebraska and Mr. Dryden to Ft. Snelling, Minnesota.

Dr. R. P. Straka, formerly of this staff, left Ames, Iowa on August 3 for the Western Regional Research Laboratory.

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RURAL ELECTRIFICATION RESEARCH DIVISION

Harry L. Garver spent August 26 at St. Paul, Minn., discussing rural electrification activities with Professor A. J. Schwantes and other members of the agricultural engineering staff of the Minnesota College of Agriculture. Mr. Garver then drove to Ames, Iowa, Columbia, Mo., and New Madrid, Mo. At the latter place he discussed the rural electrification program with Jefferson B. Rodgers who has recently been appointed Associate Agricultural Engineer in the Bureau. Mr. Rodgers will be stationed on the Farm Security Administration resettlement area at La Forge where he will investigate the possibility of using electricity on low income farms. Rodgers comes to the Bureau from the University of Idaho where he has been employed in rural electrification research with Professor Beresford.

Mr. Garver appeared on the program of the rural electrification short course for power company representatives and rural electrification administration project superintendents, held at Blacksburg, Va., Sept. 8 and 9. He told about the research work of the Bureau in rural electrification.

Geo. W. Kable, editor of Electricity on the Farm, accompanied Mr. Garver to the School of Living at Suffern, N.Y., recently where the cooperative work between that institution and the Bureau was discussed.

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Mr. May has completed the construction of a motor-driven drag saw that may be operated with a quarter horsepower electric motor. The device is naturally slower than a circular saw but is much safer. Since it can be operated with a small motor, it lends itself to use on practically every farm where wood is used for fuel.

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AGRICULTURAL CHEMICAL RESEARCH

Food Research Unit

The meeting of the American Soybean Association, held at Dearborn, Mich. on August 18-20, was attended by Dr. J. A. LeClerc. He also spent a number of days at Battle Creek, Mich. and Mt. Vernon, Ohio, studying methods in soybean, grain and cereal food factories, and discussing the cereal industry with other workers.

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Dr. Harry E. Goresline and Dr. E. A. Beavens, the latter of the Geneva, N.Y. station, attended the Fall meeting of the American Chemical Society at Detroit on September 9-13. Dr. Goresline presented a paper on "The Effect of Headspace on the Keeping Quality of Bottled Wines," which appeared on a special program dedicated to fruits and fruit products. A paper entitled "Studies of the Bulk Fermentation Process of Making Sparkling Cider," on which Dr. Beavens was a co-author, was also given at the meeting.

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The national meeting of the Technical Association of Pulp and Paper Industries, held at Seattle, August 20 and 21, was attended by William Rabak of the Seattle, Wash., station of the Division.

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A visitor to the Division during the first week of September was Jorge Torres of Chile who discussed with members of the Food Research Unit and the Bureau the problems confronting apple growers in his country.

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FARM MECHANICAL EQUIPMENT RESEARCH

R. B. Gray left Washington September 2 to attend the 1940 A.S.A.E. Industrial Seminar during the period September 3-12, which was arranged by the Farm Equipment Institute. In connection with the seminar a number of farm machinery manufacturing plants were visited in Illinois, Wisconsin and Minnesota. Following the seminar Mr. Gray proceeded to Ames, Iowa, where, in company with Dr. E. C. Lathrop, a series of conferences was held relative to the collection of crop residues. Such conferences will also be held at the agricultural experiment stations in Minnesota, North Dakota, South Dakota, Nebraska, and Kansas and at other points.

G. A. Cumings attended a demonstration of vegetable production machinery on the Kings Farms, Tullytown, Pa., on August 29 which were arranged primarily for members of the Vegetable Growers Association of America.

W. H. Redit left Washington September 4 to supervise placement of fertilizer in two cooperative experiments with strawberries in North Carolina.

E. M. Mervine was at Davis, Calif. during the period August 29, to September 11, to inspect the experimental sugar beet harvesting machinery under construction and to confer with S. W. McBirney and the Station agricultural engineers regarding plans for field trials. On September 2 Mr. Mervine inspected the machinery on exhibit at the California State Fair and observed that hydraulic hoists are now used on practically all tractor equipment.

C. K. Shedd discussed corn production machinery at a conference of hybrid seed-corn producers at Ames, Iowa, on September 7. Mr. Shedd also assisted with the exhibition of machinery for farmers attending the Corn Field Day Program at Ames on September 5.

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NAVAL STORES RESEARCH

C. F. Speh visited Wilmington, Dela., August 29, where he discussed the form of reporting consumption of turpentine and rosin with representatives of E. I. duPont de Nemours & Company, and rosin testing with the Hercules Powder Company.

W. D. Pohle spent several days at the plant of John D. Lewis Company, Brunswick, Ga., studying factors and conditions affecting production of ester gums.

Dr. Lloyd M. Joshel attended the meetings of the American Chemical Society at Detroit, Mich., during the week of September 9.

J. R. Nevers, District Supervisor, Pensacola District, Naval Stores Control Program, U. S. Forest Service, Pensacola, Fla., brought the men in his territory to the Naval Stores Station, Olustee, Fla., for a demonstration on September 12, 1940. These men came from West Florida and as far west as Western Mississippi areas in Mr. Nevers' district. The group was taken through the Naval Stores Station's buildings and grounds. Special distillation and gum cleaning tests were made to illustrate the gum cleaning method used at the Station and the comparison of fire still distillation with this gum cleaning method; cups and accessories; the results of work in storage of rosin in wooden and metal barrels and paper containers. The use of the photometer was outlined.

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The men were given various pieces of literature for free distribution which they will use in their work with naval stores producers.

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PROCESSING FARM PRODUCTS RESEARCH

Cotton Ginning Investigations:

Typical gins in Alabama, Georgia and South Carolina are being surveyed by members of the Ginning Laboratory staff from this Bureau and the Agricultural Marketing Service. The work includes engineering and technological surveys of equipment, power and handling facilities. V. L. Stedronsky of the Bureau of Agricultural Chemistry and Engineering and A. J. Johnson of the Agricultural Marketing Service began work in Alabama and have proceeded thence to parts of Georgia and to the region of Ashwood, S.C. Other survey work will continue at a later date as the ginning of cotton progresses northward.

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On August 23, Chas. A. Bennett gave an informal description of the Bureau activities at Stoneville before the Senatobia, Miss. rotary club in a joint program with Ashley Terry, County Agent.

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T. A. Gibson and staff of ginners from England, Ark., visited the Laboratory on September 3 for an informal ginning school desired by Mr. Gibson in connection with his ginning of cotton from 7,000 acres of long staple Stoneville 2B cotton. This visit is typical of the action on the part of a number of large planters who are taking full advantage of the facilities of the Cotton Ginning Laboratory.

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Tests began in earnest in the Ginning Laboratory on September 9, and concurrently a number of cooperative installations of special ginning equipment covered by memoranda of agreement between the Bureau and cotton growers likewise began operation. Very favorable reports have been received from the operation of the new simplified set-ups devised by the engineers of the laboratory, and cotton is being ginned smoothly at these gins in spite of approximately 19 percent moisture content which has been encountered in the early green heavy cottons.

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On September 7 Dr. J. O. Ware of the Bureau of Plant Industry visited the Ginning Laboratory in connection with roller ginning. The shops of the Bureau have cooperated with the Bureau of Plant Industry in the construction of the small roller gins now being used by the latter bureau in their agronomic and genetic tests.

On Wednesday September 11, Jorge Sola and Rene P. Delpech of the Argentine National Cotton Board, paid a visit to Stoneville. Mr. Sola has been connected with the Argentine Embassy for several years, and Mr. Delpech, Chief of the Bureau of Statistics of the Argentine Cotton Board, made his first trip to the South.

The small-diameter, high-pressure, pure-seed system which has been advocated by the Laboratory is making an impressive showing in its first year at the cotton gins which have adopted the Laboratory recommendations. A rotary blower or air pump operating at about 700 revolutions per minute delivers 4 cubic feet of air under one pound pressure for each pound of seed to be handled. The ginned cotton seed are dropped into the air stream through a sealed wheel dropper and are thence blown through discarded 4 inch boiler tubes for a maximum distance of 200 feet. The power required for handling the seed in this manner rarely exceeds 5 horsepower, while 11 or more horsepower are normally consumed in the conventional fan and large pipe systems.

Bankhead-Jones Packaging Research:

On September 6 E. O. Regis, Agronomist of the Brazilian Department of Agriculture, visited the pressing laboratory and inspected the ginning research work at Stoneville.

On September 9 the first 330 pound standard density bale of lint cotton was packaged on the new experimental standard density press. This press was purchased by the Bureau under its own specifications on open bids and weighs approximately 26 tons but retains the conventional American size cotton boxes and condenser construction so that its features may, if feasible, be applied directly to existing gins. The cotton was relatively dry, and a hydraulic pressure of only 1400 pounds per square inch on the rams was required to press the bale to a tied-out density of 21.7 pounds per cubic foot. Incoming bales of green cotton have since been handled at densities more nearly comparable to those required for domestic shipment ranging up to 25 pounds per cubic foot when tied out. These bales require 11 ties for neatest appearance and necessitate operation of the press rams at approximately 3800 pounds hydraulic pressure per square inch, which confirms the original calculations of the engineers. This verification of the design data which was based upon pilot press operations last year has proved most gratifying, because it will enable the Bureau to safely make recommendations on press construction from successful and practical full-size installation as well as from

the pilot press work. The Laboratory has again undergone the experience of "breaking in" the new rams used for such high density presses. Any other scientists in the Bureau who contemplate using hydraulic presses for speedy operation should profit by the experience of the Laboratory and insist upon polished rams when the presses are delivered by the manufacturer. Failure to do this may lead to serious difficulties in continuous or speedy operation. Even with polished rams the Laboratory finds it necessary to handle a significant number of bales before the press really settles down to smooth working.

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The Bureau now has the only assembly in the world, on one ginning floor, of 5 different full size cotton presses capable of making many different kinds and sizes of bales in densities ranging from 11 pounds per cubic foot to as high as 50 pounds per cubic foot. The pilot bales of the Laboratory are much sought after by the southern Extension Services of the various States to amplify and beautify their exhibits at the State fairs.

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Wilfred Van De Walle of Ghent, Belgium, visited the Cotton Ginning Laboratory in connection with seed grading and culling devices and has spent some time observing the ginning and pressing processes with which he was unacquainted. Mr. Van De Walle's family have been manufacturers of factory built wheels for all purposes and unfortunately lost their home and the factory by German bombing during the invasion of Belgium.

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FARM STRUCTURES RESEARCH

The Commodity Credit Corporation has purchased and is getting delivery on 13,701 steel bins for storage of government-owned shelled corn. The specifications and drawings for bins were worked out by this Division as a result of the storage projects. The bins are 18 ft. in diameter, $13\frac{1}{2}$ feet to top of sidewall and have a capacity of 2,730 bushels each. The average cost per bushel of capacity for these bins was about 2 cents lower than the cost for bins purchased last year when no definite specification was available. The bins purchased this year have a total capacity of about 37,000,000 bushels so that a reduction of 2 cents per bushel means a considerable saving. The new bin was designed by Dr. H. J. Barr after extensive tests of strength of joints in sheet metal and study of permanence of bins used by the Commodity Credit Corporation last year. It is believed to be stronger and more weather-proof than any steel bin previously used.

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A. D. Edgar made a recent trip into potato-growing areas of Colorado, attending a conference of potato workers and visiting several potato storages. A new storage following the recommended provisions for ventilation, air circulation, and insulation was inspected while under construction.

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Wallace Ashby presented a paper, "Cooperative Relations and Organized Effort for Farm Building Service," at the meeting of the North Atlantic Section of the American Society of Agricultural Engineers at Orono, Maine, August 27-30.

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A paper on "Errors, Corrections, and a Reprint of the Northeast Plan Service," was prepared by T.A.H. Miller and presented at the meeting by Mr. Ashby. Tentative plans for a winter survey of buildings erected from Northeastern Plan Service designs were discussed at a round table of engineers from the State Agricultural Colleges of that region.

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An interesting exhibit of farmhouse and village house designs to be constructed of lumber, plywood, or brick was arranged for this meeting by the National Homes Foundation. Similar exhibits could probably be obtained for other meetings if desired.

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CHANGES IN PERSONNEL

(Recent Appointments - Indefinite or Probationary)

Wayne R. Joplin	Unskilled Laborer (Laurel, Miss.)	Agr.Chem.Res. Div.
Jeff Davis Thomas	" " " "	" " " "
Wm.Avery Sidders	" " (Puyallup, Wash.)	" " " "
Charles A. Browne	Collaborator	Office of the Chief
Clarence Griffin	Jr. Engineering Aid (Peoria, Ill.)	Plans and Service
Thos. L. McMeekin	Sr. Chemist (Wyndmoor, Pa.)	East.Reg.Res. Lab.
J.Theodore Bouton	Asst.Audit Clerk (Wyndmoor, Pa.)	" " " "
William Galler	Scientific Aid (Wyndmoor, Pa.)	" " " "
Kathleen A. Wills	Jr. Clerk-Steno (Wyndmoor, Pa.)	" " " "
Elsie E. Hamilton	Under Clerk-Typist " "	" " " "
Gregorio Perri	Janitor (Wyndmoor, Pa.)	" " " "
Chas. L. Mehlretter	Assoc.Chemist (Peoria, Ill.)	North." " "
Majel M. MacMasters	" " " "	" " " "
Julian W. Nash	Asst. Chem.Engr. (Organic)(Peoria, Ill.)	" " " "
Roy L. Whistler	Assoc. Chemist (Peoria, Ill.)	" " " "
Anna Louise Hicks	Jr. Clerk-Typist " "	" " " "
Maxine G. Moutone	Asst.Clerk-Steno (Peoria, Ill.)	" " " "
Robt.Park Newton, Jr.	Asst.Chem. Engr. " "	" " " "
Robt. A. Knox	Senior Clerk (Peoria, Ill.)	" " " "
Maurice A. Agre	Jr. Clerk-Steno " "	" " " "
Marjorie L. Hamburger	Under Clerk-Typist (New Orleans, La.)	South." " "
Mary L. Rollins	Asst.Fiber Technologist " " "	" " " "
W. James Lyons	Assoc. Physicist (New Orleans, La.)	" " " "
John F. Cassidy	Jr. Chem.Engr. (New Orleans, La.)	" " " "
Dell P. McCutcheon	Jr.Clerk-Typist (Albany, Calif.)	West." " "
Wilfred Lawrence Shaw	Jr. Librarian (Albany, Calif.)	" " " "
Edwin C. Muller	Unskilled Laborer (Prosser, Wash.)	" " " "
Jefferson B. Rodgers	Assoc. Agr. Engr. (New Madrid, Mo.)	Rural Electrifi.

(Recent Appointments - Temporary)

Lester M. Lutz	Asst. Lab. Mechanic (Geneva, N.Y.)	Agr.Chem.Res. Div.
Mrs.Virginia F.Mackay	Jr.Clerk-Typist (Purchase & Property)	Bus. Adminis.
Joan Boye	Junior Stenographer	Plans and Service
Mrs.Evelyn Rosenstein	" "	" " "
Mrs. Lydia A. Spiker	" "	" " "
Gordon A. Sossich	Skilled Laborer (Wyndmoor, Pa.)	East.Reg. Res. Lab.
Mrs. Dorothy Newmann	Jr. Clerk-Steno. (New Orleans, La.)	South." " "

Separations

Henry L. Fowler	Mechanic (Northport, Wash.)	Agr.Chem.Res. Div.
Pearl Dresden	Jr.Clerk-Typist (To War Dept.)	Bus. Adminis.
Shirley H. Edelston	Sr. Stenographer	Indus.Farm Prod.Res.
Helen B. Kramer	Senior Stenographer	Naval Stores
Charles A. Browne	Principal Chemist (Retired)	Office of Chief
Leonard Liebling	Asst. Messenger (To War Dept.)	Plans and Service
Vincent B. Crane	Chief Engr. Draftsman(To War Dept.)	" " "
Chas. Edward Dehner	Jr. Engr. Aid (Peoria, Ill.)	" " "
Thos. W. Miller	Assoc. Engr. (To War Dept.)	" " "
Mrs.Evelyn T. Sandusky	Jr. Clerk-Typist	Reg.Res.Lab.(Admin)
Lydia M. Armstrong	" " "	" " "
William J. Sparks	Principal Chemist (Peoria, Ill.)	North.Reg.Res.Lab.
Clara M. Fischer	Senior Typist (St.Paul,Minn.)	West. " " "
Jack H. Veale	Under Scien. Helper (Urbana, Ill.)	Reg.Soybean Lab.
Edward L. Griffin	Agent (F.C.)(College Park, Md.)	Structures

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PUBLICATIONS APPEARING OUTSIDE THE DEPARTMENT

- BALLS, A. K., LINEWEAVER, HANS and SCHWIMMER, S. Observations on the drying of Papaya Latex and the stability of papain. Ind. Eng. Chem., vol. 32, no. 9, pp 1277-79, Sept. 1940.
- BECKER, H.C., MILNER, R. T. And NAGEL, R.H. A method for the determination of nonprotein nitrogen in soybean meal. Cereal Chem 17 (4): 447-457. July, 1940.
- BROWN, H. Fire and explosion protection at country grain elevators. News Letter No. 79 of the Assoc. of Amer. Railroads pp.27-31, June 1940.
- FLECK, E. E. and PALKIN, S. A hydroxy-lactone from d-Pimaric Acid. Jour. of the Amer. Chem. Soc. 62: 2044, 1940.
- GROGGINS, P.H., PITTMAN, A.L. and DAVIS, F. H. Sodium chlorate - cell design. Chem. & Metall. Engr. 47(7): 468-470, July, 1940.
- KNIGHT, H.G. The research program on starch in the new regional laboratories. The News Letter - Amer. Assoc. of Cereal Chemists 50 (2): 1-5, Sept. 1, 1940.
- KRAYBILL, H.R., THORNTON, M.H. and ELDRIDGE, K.E. Sterols from crude soybean oil. Indus. & Engr. Chem. 32 (8): 1138-1139, Aug. 1940.
- MARTIN, L. F. Breakdown of Tobacco mosaic virus protein. (abstract). Procs. Third Internatl. Cong. for Microbiology, New York, Sept. 2-9, 1939. pp. 281-282, 1940.
- NAVAL STORES RESEARCH DIVISION. The work of the naval stores cooperative agents. Naval Stores Rev. 50(21): 8 & 13, Aug. 24, 1940.
- NELSON, G. H. , STRAKA, R.P. and LEVINE, M. Anaerobic decomposition and gasification of cornstalks by thermophiles. Iowa State Col. Jour. of Sci. 14 (3): 233-251, April, 1940.
- NOLTE, ARTHUR J., and HARRY W. von Loesecke. Manufacture and Physical Properties of grapefruit seed oil. Ind. Eng. Chem., vol. 32, no. 9, pp. 1244-1246, Sept. 1940.
- POHLE, W. D. Surface tension of rosin soap solution. Oil & Soap 17 (7): 150-151, July 1940.
- SIMONS, J.W. Making a building plan. South. Agr. 70(6): 7, June, 1940. Today's farm home. So. Agr. 70(7): 6, July 1940.
- STIRTON, A.J., PETERSON, R.F. and GROGGINS, P.H. Sulfonated arylstearic acids, wetting properties of the sodium salts. Indus. & Eng. Chem. 32(8): 1136-1137, Aug, 1940.

THE HISTORY OF THE UNITED STATES

CHAPTER I. THE DISCOVERY OF AMERICA. The first discovery of America was made by Christopher Columbus in 1492. He sailed from Spain on August 3rd, 1492, and after a long voyage, he reached the island of San Salvador on October 12th, 1492. This was the first of many voyages that Columbus made to the New World.

CHAPTER II. THE FIRST SETTLEMENTS. The first permanent settlement in America was founded by Spanish explorers in 1492. They established a settlement on the island of San Salvador, which was the first of many settlements that were founded in the New World.

CHAPTER III. THE FIRST VOYAGES. The first voyage to America was made by Christopher Columbus in 1492. He sailed from Spain on August 3rd, 1492, and after a long voyage, he reached the island of San Salvador on October 12th, 1492.

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